

CONTINUING ELIGIBILITY INSPECTION (CEI) REPORT
FOR FLOOD CONTROL PROJECTS

1. Project Name: Iao Stream FCP for FY03

2. Date of Inspection: October 28, 2002

3. Inspection Personnel:

| Name | Agency/Office | Telephone No. |
|------------------|--------------------------|---------------|
| a. Dan Meyers | CEPOH-EC-T | 438-8875 |
| b. Eric Li | CEPOH-EC-T | 438-8862 |
| c. Leonard Costa | DPW, Division Supervisor | 270-7869 |

4. Discussion:

The project: Iao Stream FCP is located in Wailuku, Maui, authorized by the Flood Control Act of 1968. The project was completed in 1980 and provides for a debris basin about 2.5 miles upstream of the mouth of Iao Stream, channel improvements from the debris basin to about 1,100 liner feet downstream of Market Street Bridge, diversion levees and channel improvements to the Waiehu Bridge. Maintenance deficiencies were noted and suggestions were made to the DPW representatives. These deficiencies and suggestions are listed below. All given stations are based on the main channel unless otherwise stated. **Refer to alphabetical lettered "photo plan" in back of report for picture reference.**

FY03 CEI Ratings

Project Rating: "M, Marginally Satisfactory"

Project Condition Code: "M, Minimally Acceptable"

Project Status: "Active"

* = no change from report inspected Oct. 30, 2001.



Table. Summary of defects.

| Station | Location | Description |
|----------------|---|---|
| 130+50 | Levee H, LB | Clean weep holes of vegetation (typical). |
| 127+00 | Levee H, debris basin | Remove debris, clear gratings, and remove vegetation on RB levee. |
| 127+00 | Levee H, LB fence line | Remove tree from fence. |
| 125+00 | Levee H, channel | Remove vegetation. |
| 119+00 | Levee H, RB drop apron #1 | Remove vegetation from weep holes (typical). |
| 114+50 | Levee H, RB drop apron #2 | Remove vegetation from weep holes and trees from top of fence. |
| 109+75 | Levee H, drop apron #3 | Remove vegetation on LB and RB. |
| 99+50 | LB, downstream Market Street Bridge | Remove tree branch encroachment from top of LB. |
| 96+75 | LB, downstream Market Street Bridge after first drop structure | Repair eroded concrete hole (6'L x 5'W x 3'D) in swale. Same comment from FY02 report. |
| 93+25 | RB, 350' downstream of first drop structure from Market Street Bridge | Sidewall and channel invert are settling. Need to monitor 40'x50' area. Remove tree and debris at top of RB wall for further inspection. Beware of geese and dogs at top of RB. |
| 85+00 | Levee G, access road | Cut vegetation and restore viable path to access road. |
| 85+00 | Levee G | Fill in eroded bottom wall of levee and remove vegetation in vicinity. |
| 85+00 | Levee G | Replace damaged flapgate. |
| 87+50 | Levee G | Remove vegetation material. Beware of dogs. |
| 90+00 | Levee G | Remove stockpile debris, vegetation, and fencing encroachments on levee. Beware of dogs. |
| 79+36 | RB, Levee E | Vegetation to remain in order to stabilize bank. Continue to monitor levee. |
| 65+25 to 57+00 | RB, Levee C and D, and Revetment X on townside | Verify all encroachments onto levee within these stations. Do the encroachments enter levee easements. |
| 64+70 | RB, between Levee D and C | Remove peacock shaped tree. |
| 57+50 | RB, Revetment X | Remove two plumeria trees from levee. |
| 51+40 | Levee F | Remove debris, restore sideslope, and cut vegetation. |
| 49+00 | LB, Revetment X limits | Monitor eroded area. |
| 45+00 | RB, Levee B | Remove vegetation from both 54" RCP drain pipes. |
| 38+50 | RB, between Levee B and A | Repair and stabilize eroded stream sideslope. |
| 19+65 to 0+00 | Channel under Waiehu Bridge to mouth of stream. | Remove rocks and vegetation. |

Levee I



a. Overview of the grouted rock slope protection on the Left Bank (LB) at Sta. 135+00 upstream of the debris basin, at Levee I.

Levee H



b. Sta. 130+50, Left Bank, (LB), clean weep holes as required.



c. Sta. 127+00, remove debris. Clear gratings. Remove vegetation on right bank levee.



d. Sta. 127+00, Left Bank, (LB), remove tree from fence line.



e. Sta. 125+00, overview - remove vegetation along channel.



f. Sta. 119+00, RB, drop apron #1 - remove vegetation from weepholes (typical).



g. Sta. 114+50, RB, drop apron #2 - remove vegetation and trees from top of fence.



h. Sta. 109+75, drop apron #3 - remove vegetation on left and right bank.



i. Sta. 99+50, Left Bank (LB), remove tree/branch encroachment onto channel *.



j. Sta. 96+75, LB, side of invert, eroded concrete not yet repaired from FY02 inspection *.



k. Sta. 93+25, RB, sidewall and invert settling. (Location is about 350' downstream of drop structure.) Repair invert.



l. Sta. 93+25, RB, remove tree and debris at top of RB wall to inspect damaged/settling portion of channel sidewall.

Levee G



m. Sta. 85+00, restore access road to channel by cutting vegetation.



n. Sta. 85+00, remove vegetation and fill in eroded bottom wall.



- o. Sta. 85+00, replace damaged flapgate.



- p. Sta. 87+50, remove encroachments (vegetation and fencing) and restore levee sideslope.



q. Sta. 90+00, remove stockpile debris and vegetation.



r. Sta. 90+00, remove unauthorized structure (dog fence) from levee sideslope on townside.

Levee E



s. Sta. 79+36, RB, no work required. Vegetation to remain to stabilize sideslope. Continue to monitor levee E.

Levee D



t. Sta. 76+84 within Levee "D", overview.



u. Approximate Sta. 65+25 within Levee "D", 50' long white pvc fence. Verify if fence is an encroachment onto the levee; does fence intrude upon easement. Verify if there are any other encroachments on the levee between station 65+25 and station 57+00.

Levee C



v. Approximate Sta. 64+70 between Levees "C" and "D", remove peacock shaped tree.



w. Approximate Sta. 60+50 within Levee "C", middle of rocks on Lawai Place.

Revetment X



x. Approximate Sta. 59+00 within Revetment "X", middle of rocks on Iao Place.



y. Approximate Sta. 57+50 within Revetment "X", remove two (2) plumeria trees.



y2. Approximate Sta. 57+00 within Revetment "X", verify easement location in relation to the levee, ditch, and fence post. Take action as required if fence post is within easement.



z. Approximate Sta. 55+20 = Revetment "X" Sta. 6+50, 48" RCP drain line referenced from drawing, "Iao Stream Flood Control Project Revetment X Plan Profile and Typical Sections", dated June 17, 1980, sheet 7A, location code 7990-03, class 16 type 02 section 02.



aa. Approximate Sta. 49+00 within Revetment X, monitor eroded area.

Levee F



bb. Sta 51+40, remove debris, restore sideslope, and cut vegetation.

Levee B



cc. Approximate Sta. 45+00, RB, remove vegetation from two 54" RCP drain lines within levee B referenced from "Iao Parkside" drawings, sheet 11, dated December 4, 1992, Job No. 90044, by Warren S. Unemori Engineering Inc.



dd. Approximate Sta. 41+20, RB, end of rip rap separated by access road within levee B.



ee. Approximate Sta. 38+50, RB, repair eroded stream bank between levees "A" and "B".

Levee A



ff. Sta. 19+65, RB, remove rocks and vegetation under Waiehu Bridge and beyond.

Concrete Channel - Stream Realignment



gg. Approximate Sta. 18+50, RB, remove rocks and vegetation from channel bottom.



hh. Approximate Sta. 17+50, remove rocks and vegetation from channel bottom.

5. Findings/Conclusions:

In accordance with EP 500-1-1(dated 30 September 2001), and based on this CEI, the Project Rating Code is "M, Marginally Satisfactory". The project condition code is "M, MINIMALLY ACCEPTABLE", and the project status is considered "ACTIVE" in the Rehabilitation and Inspection Program.

Signed: _____
Eric Li, E.I.T., CEPOH-EC-T

Signed: _____
James Pennaz, P.E., Chief, CEPOH-EC-T

Enclosure(s)

1. Site Plan
2. Photo Plan
3. Fact Sheet, dated June 2002
4. Condition of Improvement, dated 30 September 1993